

## ABSTRACT

The present invention relates to methods and compositions for eliciting an immune response and the prevention and treatment of primary and metastatic neoplastic diseases and infectious diseases. The methods of the invention comprise administering a composition comprising an effective amount of a complex, in which the complex consists essentially of a heat shock protein (hsp) noncovalently bound to an antigenic molecule. "Antigenic molecule" as used herein refers to the peptides with which the hsps are endogenously associated *in vivo* as well as exogenous antigens/immunogens (*i.e.*, with which the hsps are not complexed *in vivo*) or antigenic/immunogenic fragments and derivatives thereof. In a preferred embodiment, the complex is autologous to the individual. The effective amounts of the complex are in the range of 10-600 micrograms for complexes comprising hsp70, 50-1000 micrograms for hsp90, and 10-600 micrograms for gp96. The invention also provides a method for measuring tumor rejection *in vivo* in an individual, preferably a human, comprising measuring the generation by the individual of MHC Class I-restricted CD8+ cytotoxic T lymphocytes specific to the tumor. Methods of purifying hsp70-peptide complexes are also provided.

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